

REMARKS

Applicant respectfully requests reconsideration of this application. Claims 1-5 were pending. Claims 1 and 4 have been amended. No claims have been canceled. New claims 6-8 have been added. Claims 1-8 are pending.

Claims 1-5 were rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-3 and 8 of U.S. Patent No. 6,711,653. A terminal disclaimer is respectfully submitted with the current response to overcome the rejection. Withdrawal of the rejection is respectfully requested.

Claim 4 was rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,781,774 of Krick ("Krick"). Applicant respectfully traverses the rejection. Claim 4 as amended includes a limitation of:

a memory management unit to manage data flow among the execution core, the cache and the memory, the memory management unit to operate in a first cache coherency mode or a second cache coherency mode according to a *property of the operating system*.

(Claim 4 as amended; emphasis added)

In contrast, Krick fails to disclose at least the above limitation.

According to Krick, a *type pin* of a processor indicates whether the processor is an OEM processor, a single processor, a dual processor computer system, or an upgrade processor in the dual processor computer system. The type pin enables and disables a cache coherency mechanism in the processor. (Krick, col. 2, ln. 38-43). In other words, the cache coherency mechanism in Krick is enabled or disabled based on the *type* of the processor. Note that the type of the processor is not a property of the operating system. The "operating *mode*" determined by the input pin in Krick is not an operating system of

the computer system. Krick does not disclose, suggest, or imply that a memory management unit is to operate in a cache coherency mode according to a *property of the operating system*. Since Krick does not disclose every limitation in claim 4, Krick does not anticipate claim 4. Withdrawal of the rejection is respectfully requested.

Claims 1-3 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,781,774 of Krick (“Krick”) in view of applicant’s Admitted Prior Art. Applicant respectfully traverses the rejection. Claim 1 as amended includes a limitation of:

a memory management unit to implement a first cache-coherency mechanism or a second cache-coherency mechanism according to a *property of an operating system* to be run by the processor.

(Claim 1 as amended; emphasis added)

In contrast, neither Krick nor the alleged AAPA discloses the above limitation.

According to Krick, a *type pin* of a processor indicates whether the processor is an OEM processor, a single processor, a dual processor computer system, or an upgrade processor in the dual processor computer system. The type pin enables and disables a cache coherency mechanism in the processor. (Krick, col. 2, ln. 38-43). In other words, the cache coherency mechanism in Krick is enabled or disabled based on the *type* of the processor. Note that the type of the processor is not a property of the operating system. The “operating *mode*” determined by the input pin in Krick is not an operating system of the computer system. Krick does not disclose, suggest, or imply a memory management unit to implement one of a first cache-coherency mechanism and a second cache-coherency mechanism according to a *property of an operating system* to be run by the processor.

Furthermore, the alleged AAPA discloses a translation look-aside buffer (TLB) in some memory systems to store physical address translations for recently referenced logical addresses (Specification, p. 3, paragraph [0005]). The alleged AAPA does not teach a memory management unit to implement one of a first cache-coherency mechanism and a second cache-coherency mechanism according to a *property of an operating system* to be run by the processor.

Since neither Krick nor the alleged AAPA, alone or in combination, teaches a memory management unit to implement one of a first cache-coherency mechanism and a second cache-coherency mechanism according to a *property of an operating system* to be run by the processor, claim 1 as amended is patentable over Krick in view of the alleged AAPA. Withdrawal of the rejection is respectfully requested.

Claims 2-3 depend, directly or indirectly, from claim 1, and thus, include every limitation set forth in claim 1. For the reason discussed above with respect to claim 1, claims 2-3 are patentable over Krick in view of the alleged AAPA. Withdrawal of the rejection is respectfully requested.

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,781,774 of Krick ("Krick") in view of U.S. Patent No. 5,926,832 of Wing et al. ("Wing"). Applicant respectfully traverses the rejection. Claim 5 depends from claim 4 and includes every limitation set forth in claim 4. For the reason discussed above with respect to claim 4, Krick fails to teach a memory management unit to manage data flow among the execution core, the cache and the memory, the memory management unit to operate in a first cache coherency mode or a second cache coherency mode according to a *property of the operating system*. Furthermore, Wing merely discloses aliasing in a computer system (Wing, col. 27, ln. 24-65). Wing does not teach a memory management

unit to manage data flow among the execution core, the cache and the memory, the memory management unit to operate in a first cache coherency mode or a second cache coherency mode according to a *property of the operating system*. Since neither Krick nor Wing, alone or in combination, teaches every limitation of claim 5, claim 5 is patentable over Krick in view of Wing. Withdrawal of the rejection is respectfully requested.

New claims 6-8 have been added without introducing any new matter. It is respectfully submitted that new claims 6-8 are novel and patentable over the art of record. Allowance of claims 6-8 is earnestly solicited.

CONCLUSION


Applicant respectfully submits that the rejections have been overcome by the remarks, and that the pending claims are in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the pending claims be allowed.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §1.136 is hereby made. If any other petition is necessary for consideration of this paper, it is hereby so petitioned.

If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,
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